<center>**EXAMINER'S AMENDMENT**</center>

1.   The amendment filed on 1/15/2010 has been entered. Claims 1-27 are currently pending
in the application.

2.   An examiner's amendment to the record appears below. Should the changes and/or
additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR
1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the
payment of the issue fee.

        Authorization for this examiner's amendment was given in a telephone interview with
Joseph Presta on March 09, 2010.

        The application has been amended as follows:

Replace claims 1-4, 6-11, 13-15, 17, 19, 21, 23, 25 and 27 with the following:

1. (Currently Amended) A game apparatus in which a virtual camera arranged in a three-
dimensional game space is made to move to follow a target location determined by a location of
a player character in the game space so that a behavior of the player character in the game space
is displayed in a display as a game image, comprising:

a computer processor;

[[an]] input-information obtaining programmed logic circuitry for obtaining input information
input through a controller by a player at intervals of a predetermined number of frames in order
to move said player character in said game space at a speed;

[[a]] location updating programmed logic circuitry for updating the location of said player

character and said target location in said game space based on said input information at said

intervals of said predetermined number of frames;

[[a]] difference length calculating programmed logic circuitry for calculating at said intervals of

said predetermined number of frames a difference length between a predetermined reference

distance and a distance between said location of said target location and a location of said virtual

camera;

[[a]] virtual-camera-location updating programmed logic circuitry for updating at said intervals

of said predetermined number of frames in order said location of said virtual camera in such a

manner that said difference length calculated by said difference length calculating programmed

logic circuitry is reduced by a predetermined ratio <u>less than 1</u> of the difference length calculated

at the previous interval when said difference length exists if the difference length is less or equal

than a predetermined maximum value, regardless of whether the speed of the player character in

the game space increases or decreases, wherein said difference length is set at the predetermined

maximum value when said difference length calculated at the previous interval exceeds the

predetermined maximum value; and

[[a]] game-image generating programmed logic circuitry for generating the game image based on

the updated location of said player character and location of said virtual camera.

2. (Currently Amended) The game apparatus according to claim 1, further comprising [[a]]

virtual-camera setting programmed logic circuitry for arranging the virtual camera in a location

determined in a predetermined manner toward a point of regard, and setting a direction of said

virtual camera in such a manner as to face said point of regard; wherein a reference location is a

location of said point of regard, said virtual-camera-location updating programmed logic

circuitry updates in order the location of said virtual camera by updating in order the location of

said point of regard in such a manner that a distance from said target location to the location of

said point of regard is shortened at [[a]] the predetermined ratio.

3. (Currently Amended) The game apparatus according to claim 1, further comprising [[a]]

virtual-camera setting programmed logic circuitry for arranging the virtual camera in a location

determined in a predetermined manner toward a point of regard, and setting a direction of said

virtual camera in such a manner as to face said point of regard;

wherein a reference location is a location of said virtual camera, said target location is an initial

location of said virtual camera that moves in conjunction with said player character, said virtual-

camera-location updating programmed logic circuitry updates in order the location of said virtual

camera in such a manner that a distance from said target location to the location of said virtual

camera is shortened at [[a]] the predetermined ratio.

4. (Currently Amended) The game apparatus according to claim 1, further comprising [[a]]

distance determining programmed logic circuitry for setting a maximum distance that uses said

target location as a reference, and determining whether or not the distance between the target

location and said virtual camera location is rendered longer than said maximum distance; and

[[a]] forcedly updating programmed logic circuitry for forcedly updating said virtual camera

location to a location within the maximum distance that uses said target location as a reference

when determined by said distance determining programmed logic circuitry that the distance is

rendered longer than said maximum distance.

6. (Currently Amended) A <u>non-transitory</u> storing medium that stores a control program of a

virtual camera executed by a computer of a game apparatus in which the virtual camera arranged

in a three-dimensional game space is made to move to follow a target location determined by a

location of a player character in the game space so that a behavior of the player character in the

game space is displayed in a display as a game image, the control program of said virtual camera

allows said computer to be functioned to provide:

an input-information obtaining programmed logic circuitry for obtaining input information input

through a controller by a player at intervals of a predetermined number of frames in order to

move said player character in said game space at a speed;

a location updating programmed logic circuitry for updating the location of said player character

and said target location in said game space based on said input information at said intervals of

said predetermined number of frames;

a difference length calculating programmed logic circuitry for calculating at said intervals of said

predetermined number of frames a difference length between a predetermined reference distance

and a distance between said location of said target location and a location of said virtual camera;

a virtual-camera-location updating programmed logic circuitry for updating at said intervals of

said predetermined number of frames in order said location of said virtual camera in such a

manner that said difference length calculated by said difference length calculating programmed

logic circuitry is reduced by a predetermined ratio <u>less than 1</u> of the difference length calculated

at the previous interval when said difference length exists if the difference length is less or equal than a predetermined maximum value, regardless of whether the speed of the player character in the game space increases or decreases, wherein said difference length is set at the predetermined maximum value when said difference length calculated at the previous interval exceeds the predetermined maximum value; and

a game-image generating programmed logic circuitry for generating the game image based on a updated location of said player character and location of said virtual camera.

7. (Currently Amended) A method of controlling a virtual camera in a game apparatus in which the virtual camera arranged in a three-dimensional game space is made to move to follow a target location determined by a location of a player character in the game space so that a behavior of the player character in the game space is displayed in a display as a game image, comprising ~~following steps of~~:

(a) obtaining input information input through a controller by a player at intervals of a predetermined number of frames in order to move said player character in said game space at a speed,

(b) updating <u>by a computer processor</u> the location of said player character and said target location in said game space based on said input information at said intervals of said predetermined number of frames,

(c) calculating <u>by the computer processor</u> at said intervals of said predetermined number of frames a difference length between a predetermined reference distance and a distance between said location of said target location and a location of said virtual camera,

(d) updating at said intervals of said predetermined number of frames in order said location of said virtual camera in such a manner that said calculated difference length is reduced by a predetermined ratio <u>less than 1</u> of the difference length calculated at the pervious interval when said difference length exists if the difference length is less or equal than a predetermined maximum value, regardless of whether the speed of the player character in the game space increases or decreases, wherein said difference length is set at the predetermined maximum value when said difference length calculated at the previous interval exceeds the predetermined maximum value, and

(e) generating the game image based on the updated location of said player character and location of said virtual camera.

8. (Currently Amended) A game apparatus in which a virtual camera arranged in a three-dimensional game space is made to move to follow a target location determined by a location of a player character in the game space so that a behavior of the player character in the game space may be displayed as a game image, comprising:

<u>a computer processor;</u>

[[an]] input-information obtaining programmed logic circuitry for obtaining input information input through a controller by a player at intervals of a predetermined number of frames in order to move said player character in said game space at a speed;

[[a]] location updating programmed logic circuitry for updating the location of said player character and said target location in said game space based on said input information at said intervals of said predetermined number of frames;

[[a]] difference length calculating programmed logic circuitry for calculating at said intervals of said predetermined number of frames a difference length between a predetermined reference distance and a distance between said location of said target location and a location of said virtual camera;

[[a]] virtual-camera-location updating programmed logic circuitry for sequentially updating at said intervals of said predetermined number of frames, on a frame by frame basis, said location of said virtual camera in such a manner that said difference length calculated by said difference length calculating programmed logic circuitry is reduced by a predetermined ratio <u>less than 1</u> of the difference length calculated at the previous interval when said difference length exists if the difference length is less or equal than a predetermined maximum value, regardless of whether the speed of the player character in the game space increases or decreases, wherein said difference length is set at the predetermined maximum value when said difference length calculated at the previous interval exceeds the predetermined maximum value; and

[[a]] game-image generating programmed logic circuitry for generating the game image based on the updated location of said player character and location of said virtual camera.

9. (Currently Amended) The game apparatus according to claim 8, further comprising [[a]] virtual-camera setting programmed logic circuitry for arranging the virtual camera in a location determined in a predetermined manner toward a point of regard, and setting a direction of said virtual camera in such a manner as to face said point of regard; wherein a reference location is a location of said point of regard, said virtual-camera-location updating programmed logic circuitry sequentially updates, on a frame by frame basis, the location of said virtual camera by

sequentially updating the location of said point of regard in such a manner that a distance

between said target location and the location of said point of regard is made smaller at [[a]] the

predetermined ratio per frame.

10. (Currently Amended) The game apparatus according to claim 8, further comprising [[a]]

virtual-camera setting programmed logic circuitry for arranging the virtual camera in a location

determined in a predetermined manner toward a point of regard, and setting a direction of said

virtual camera in such a manner as to face said point of regard; wherein a reference location is a

location of said virtual camera, said target location is an initial location of said virtual camera

that moves in conjunction with said player character, said virtual-camera-location updating

programmed logic circuitry sequentially updates, on a frame by frame basis, the location of said

virtual camera in such a manner that a distance between said target location and the location of

said virtual camera is shortened at [[a]] the predetermined ratio.

11. (Currently Amended) The game apparatus according to claim 8, further comprising [[a]]

distance determining programmed logic circuitry for setting a maximum distance that uses said

target location as a reference, and determining whether or not the distance between the target

location and said virtual camera location is rendered longer than said maximum distance; and

[[a]] forcedly updating programmed logic circuitry for forcedly updating said virtual camera

location to a location within the maximum distance that uses said target location as a reference

when determined by said distance determining programmed logic circuitry that the distance is

rendered longer than said maximum distance.

13. (Currently Amended) A <u>non-transitory</u> storage medium that stores a control program of a

virtual camera executed by a computer in which the virtual camera arranged in a three-

dimensional game space follows a target location determined by a location of a player character

in the game space so that a behavior of the player character in the game space may be displayed

as a game image, the control program of said virtual camera allows execution by said computer

to provide:

[[an]] input-information obtaining programmed logic circuitry for obtaining input information

input through a controller by a player at intervals of a predetermined number of frames in order

to move said player character in said game space at a speed;

[[a]] location updating programmed logic circuitry for updating the location of said player

character and said target location in said game space based on said input information at said

intervals of a predetermined number of frames;

[[a]] difference length calculating programmed logic circuitry for calculating at said intervals of

said predetermined number of frames a difference length between a predetermined reference

distance and a distance between said location of said target location and a location of said virtual

camera;

[[a]] virtual-camera-location updating programmed logic circuitry for sequentially updating at

said intervals of a predetermined number of frames, on a frame by frame basis, said location of

said virtual camera in such a manner that said difference length calculated by said difference

length calculating programmed logic circuitry is reduced by a predetermined <u>ratio less than 1</u> of

the difference length calculated at the previous interval when said difference length exists if the

difference length is less or equal than a predetermined maximum value, regardless of whether the speed of the player character in the game space increases or decreases, wherein said difference length is set at the predetermined maximum value when said difference length calculated at the previous interval exceeds the predetermined maximum value; and

[[a]] game-image generating programmed logic circuitry for generating the game image based on the updated location of said player character and location of said virtual camera.

14. (Currently Amended) A method of controlling a virtual camera in a three- dimensional game space so as to follow a target location determined by a location of a player character in the game space so that a behavior of the player character in the game space may be displayed in a display as a game image, the method comprising:

(a) obtaining input information input through a controller by a player at intervals of a predetermined number of frames in order to move said player character in said game space at a speed,

(b) updating by a computer processor the location of said player character and said target location in said game space based on said input information at said intervals of a predetermined number of frames,

(c) calculating by the computer processor at said intervals of said predetermined number of frames a difference length between a predetermined reference distance and a distance between said location of said target location and a location of said virtual camera,

(d) sequentially updating at intervals of a predetermined number of frames, on a frame by frame basis, said location of said virtual camera in such a manner that said calculated difference length

is reduced by a predetermined ratio <u>less than 1</u> of the difference length calculated at the pervious interval when said difference length exists if the difference length is less or equal than a predetermined maximum value, regardless of whether the speed of the player character in the game space increases or decreases, wherein said difference length is set at the predetermined maximum value when said difference length calculated at the previous interval exceeds the predetermined maximum value, and

(e) generating the game image based on the updated location of said player character and location of said virtual camera.

15. (Currently Amended) A game apparatus in which a virtual camera arranged in a three-dimensional game space is made to follow a target location determined by a location of a player character in the game space so that a behavior of the player character in the game space is displayed in a display as a game image, comprising:

<u>a computer processor;</u>

[[an]] input-information obtaining programmed logic circuitry for obtaining input information input through a controller by a player at intervals of a predetermined number of frames in order to move said player character in said game space at a speed;

[[a]] location updating programmed logic circuitry for updating the location of said player character and said target location in said game space based on said input information;

[[a]] virtual-camera-location updating programmed logic circuitry for updating in order a location of said virtual camera in such a manner that a distance from said target location to a reference location determined in a predetermined manner toward the location of said virtual

camera at a predetermined <u>ratio less than 1</u> of the distance calculated at the previous interval is

shortened, if the distance is less or equal than a predetermined maximum value, regardless of

whether the speed of the player character in the game space increases or decreases, wherein said

distance is set at the predetermined maximum value when said distance calculated at the previous

interval exceeds the predetermined maximum value; and

[[a]] game-image generating programmed logic circuitry for generating the game image based on

the updated location of said player character and location of said virtual camera;

wherein a moving speed of the virtual camera is variable and is determined based on said

determined distance.

17. (Currently Amended) A <u>non-transitory</u> storing medium that stores a control program of a

virtual camera executed by a computer of a game apparatus in which the virtual camera arranged

in a three-dimensional game space is made to follow a target location determined by a location of

a player character in the game space so that a behavior of the player character in the game space

is displayed in a display as a game image, the control program of said virtual camera allows said

computer to be functioned to provide:

[[an]] input-information obtaining programmed logic circuitry for obtaining input information

input through a controller by a player at intervals of a predetermined number of frames in order

to move said player character in said game space at a speed;

[[a]] location updating programmed logic circuitry for updating the location of said player

character and said target location in said game space based on said input information;

[[a]] virtual-camera-location updating programmed logic circuitry for updating in order a location of said virtual camera in such a manner that a distance from said target location to a reference location determined in a predetermined manner toward the location of said virtual camera at a predetermined ratio <u>less than 1</u> of the distance calculated at the previous interval is shortened, if the distance is less or equal than a predetermined maximum value, regardless of whether the speed of the player character in the game space increases or decreases, wherein said distance is set at the predetermined maximum value when said distance calculated at the previous interval exceeds the predetermined maximum value; and

[[a]] game-image generating programmed logic circuitry for generating the game image based on the updated location of said player character and location of said virtual camera; wherein a moving speed of the virtual camera is variable and is determined based on said determined distance.

19. (Currently Amended) A method of controlling a virtual camera in a game apparatus in which the virtual camera arranged in a three-dimensional game space is made to follow a target location determined by a location of a player character in the game space so that a behavior of the player character in the game space is displayed in a display as a game image, comprising ~~following steps of~~:

(a) obtaining input information input through a controller by a player at intervals of a predetermined number of frames in order to move said player character in said game space at a speed,

(b) updating <u>by a computer processor</u> the location of said player character and said target

location in said game space based on said input information,

(c) updating <u>by the computer processor</u> in order a location of said virtual camera in such a

manner that a distance from said target location to a reference location determined in a

predetermined manner toward the location of said virtual camera at a predetermined ratio <u>less</u>

<u>than 1</u> of the distance calculated at the previous interval is shortened, if the distance is less or

equal than a predetermined maximum value regardless of whether the speed of the player

character in the game space increases or decreases, wherein said distance is set at the

predetermined maximum value when said distance calculated at the previous interval exceeds the

predetermined maximum value, and

(d) generating the game image based on the updated location of said player character and

location of said virtual camera;

wherein a moving speed of the virtual camera is variable and is determined based on said

determined distance.

21. (Currently Amended) A game apparatus in which a virtual camera arranged in a three-

dimensional game space is made to follow a target location determined by a location of a player

character in the game space so that a behavior of the player character in the game space may be

displayed as a game image, comprising:

<u>a computer processor;</u>

[[an]] input-information obtaining programmed logic circuitry for obtaining input information input through a controller by a player at intervals of a predetermined number of frames in order to move said player character in said game space at a speed;

[[a]] location updating programmed logic circuitry for updating the location of said player character and said target location in said game space based on said input information;

[[a]] virtual-camera-location updating programmed logic circuitry for sequentially updating, on a frame by frame basis, a location of said virtual camera in such a manner that a distance between said target location and a reference location that is determined with respect to the location of said virtual camera is made smaller at a predetermined ratio <u>less than 1</u> of the distance calculated at the previous interval per frame, if the distance is less or equal than a predetermined maximum value, regardless of whether the speed of the player character in the game space increases or decreases, wherein said distance is set at the predetermined maximum value when said distance calculated at the previous interval exceeds the predetermined maximum value; and

[[a]] game-image generating programmed logic circuitry for generating the game image based on the updated location of said player character and location of said virtual camera;

wherein a moving speed of the virtual camera is variable and is determined on based said determined distance.

23. (Currently Amended) A <u>non-transitory</u> storage medium that stores a control program of a virtual camera executed by a computer in which the virtual camera arranged in a three-dimensional game space follows a target location determined by a location of a player character in the game space so that a behavior of the player character in the game space may be displayed

as a game image, the control program of said virtual camera allows execution by said computer
to provide:

[[an]] input-information obtaining programmed logic circuitry for obtaining input information
input through a controller by a player at intervals of a predetermined number of frames in order
to move said player character in said game space at a speed;

[[a]] location updating programmed logic circuitry for updating the location of said player
character and said target location in said game space based on said input information;

[[a]] virtual-camera-location updating programmed logic circuitry for sequentially updating, on a
frame by frame basis, a location of said virtual camera in such a manner that a distance from said
target location to a reference location that is determined with respect to the location of said
virtual camera is made smaller at a predetermined ratio of the distance calculated at the previous
interval per frame, if the distance is less or equal than a predetermined maximum value,
regardless of whether the speed of the player character in the game space increases or decreases,
wherein said distance is set at the predetermined maximum value when said distance calculated
at the previous interval exceeds the predetermined maximum value; and

[[a]] game-image generating programmed logic circuitry for generating the game image based on
the updated location of said player character and location of said virtual camera;

wherein a moving speed of the virtual camera is variable and is determined based said
determined distance.

25. (Currently Amended) A method of controlling a virtual camera in a three- dimensional game
space so as to follow a target location determined by a location of a player character in the game

space so that a behavior of the player character in the game space may be displayed in a display

as a game image, the method comprising:

(a) obtaining input information input through a controller by a player at intervals of a

predetermined number of frames in order to move said player character in said game space at a

speed,

(b) updating by a computer processor the location of said player character and said target

location in said game space based on said input information,

(c) sequentially updating by the computer processor, on a frame by frame basis, a location of said

virtual camera in such a manner that a distance from said target location to a reference location

that is determined with respect to the location of said virtual camera is made smaller at a

predetermined ratio less than 1 of the distance calculated at the previous interval per frame, if the

distance is less or equal than a predetermined maximum value, regardless of whether the speed

of the player character in the game space increases or decreases, wherein said distance is set at

the predetermined maximum value when said distance calculated at the previous interval exceeds

the predetermined maximum value, and

(d) generating the game image based on the updated location of said player character and

location of said virtual camera; wherein a moving speed of the virtual camera is variable and is

determined based said determined distance.

27. (Currently Amended) A game apparatus in which a virtual camera arranged in a three-

dimensional game space is made to move to follow a target location determined by a location of

a player character in the game space so that a behavior of the player character in the game space

is displayed in a display as a game image, comprising:

a computer processor;

[[an]] input-information obtaining programmed logic circuitry for obtaining input information

input through a controller by a player at intervals of a predetermined number of frames in order

to move said player character in said game space at a speed;

[[a]] location updating programmed logic circuitry for updating the location of said player

character and said target location in said game space based on said input information at said

intervals of said predetermined number of frames;

[[a]] difference length calculating programmed logic circuitry for calculating at said intervals of

said predetermined number of frames a difference length between a predetermined reference

distance and a distance between said location of said target location and a location of said virtual

camera;

[[a]] virtual-camera-location updating programmed logic circuitry for updating at said intervals

of said predetermined number of frames in order said location of said virtual camera in such a

manner that said difference length calculated by said difference length calculating programmed

logic circuitry is reduced by a predetermined ratio less than 1 of the difference length calculated

at the previous interval when said difference length exists if the difference length is less or equal

than a predetermined maximum value, when the speed of the player character increases, wherein

said difference length is set at the predetermined maximum value when said difference length

calculated at the previous interval exceeds the predetermined maximum value; and

[[a]] game-image generating programmed logic circuitry for generating the game image based on

the updated location of said player character and location of said virtual camera.

REASONS FOR ALLOWANCE

3.   The following is an examiner's statement of reasons for allowance:

The prior art of record fails to teach the invention as particularly claimed. Mizumoto (US

6,409,597 B1) teaches of a viewpoint position control using predetermined viewpoint conditions

for moving the viewpoint at predetermined speed to each selected position when the

predetermined viewpoint condition is satisfied. Fukuda (US 6,670,957 B2) teaches of

determining the position of the virtual camera in consideration with the moving speed of the

object. The prior arts do not teach of reducing a difference length calculated between a

predetermined reference distance and a distance between location of target and virtual camera by

a predetermined ratio of the difference length of less than one, regardless whether the speed of

the player character increases or decreases. The examiner has identified and provided additional

prior arts in the reference cited. The combinations of prior arts do not provide determining the

location of virtual camera as specifically claimed.

        Any comments considered necessary by applicant must be submitted no later than the

payment of the issue fee and, to avoid processing delays, should preferably accompany the issue

fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for

Allowance."

     Any inquiry concerning this communication or earlier communications from the

examiner should be directed to KANG HU whose telephone number is (571)270-1344. The

examiner can normally be reached on 8-5 (Mon-Thu).

     If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Xuan Thai can be reached on 571-262-7147. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

     Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/K. H./   /John M Hotaling II/
Examiner, Art Unit 3715   Primary Examiner, Art Unit 3714